

IN THE CLAIMS

Please cancel claims 1-9, 14-17 and 21-27, amend claim 10 and add new claims 28-37 as follows:

1-9. CANCELLED

10. (CURRENTLY AMENDED) Isolated GBP-4 polypeptide encoded by ~~the nucleic acid of claim 1~~ a nucleic acid comprising DNA having at least about 600 nucleotides and at least about a 95% sequence identity to (a) a DNA molecule encoding a human guanylate binding protein-4 (GBP-4) polypeptide comprising the sequence of amino acids 1-591 of Figure 1 (SEQ ID NO:3), or (b) the complement of the DNA molecule of (a).

11. The polypeptide of claim 10 that is human GBP-4.

12. A chimeric molecule comprising a guanylate binding protein-4 (GBP-4) polypeptide fused to a heterologous amino acid sequence.

13. The chimeric molecule of claim 12 wherein said heterologous amino acid sequence is an epitope tag sequence or an Fc region of an immunoglobulin.

14-17. CANCELLED

18. A composition comprising the polypeptide of claim 10 and a carrier therefor.

19. A composition comprising an antagonist to the polypeptide of claim 10 and a carrier therefor.

20. The composition of claim 18 further comprising GTP.

21-27. CANCELLED

--28. (NEW) An isolated GBP-4 polypeptide encoded by a nucleic acid which hybridizes under stringent conditions with DNA encoding GBP-4 polypeptide comprising amino acids 1 to 591 of Figure 1 (SEQ ID NO: 3); wherein the GBP-4 polypeptide (a) binds to at least one guanine nucleotide; and (b) comprises:

(i) a Asp-Thr-Glu-Gly (amino acid residues 97-100 of SEQ ID NO: 3) GTP-binding consensus motif;

(ii) a Thr-Leu-Arg-Asp (amino acid residues 179-182 of SEQ ID NO: 3) potential casein kinase II phosphorylation site;

(iii) a Ser-Gly-Lys-Glu (amino acid residues 568-571 of SEQ ID NO: 3) potential casein kinase II phosphorylation site;

(iv) a Thr-Leu-Arg (amino acid residues 179-181 of SEQ ID NO: 3) potential protein kinase C phosphorylation site;

(v) a Thr-Met-Arg (amino acid residues 562-564 of SEQ ID NO: 3) potential protein kinase C phosphorylation site;

(vi) a Ser-Gly-Lys (amino acid residues 568-570 of SEQ ID NO: 3) potential protein kinase C phosphorylation site;

(vii) a Ser-Gln-Lys (amino acid residues 586-588 of SEQ ID NO: 3) potential protein kinase C phosphorylation site;

(viii) a Gly-Ile-Met-Val-Asn-Gly (amino acid residues 283-288 of SEQ ID NO: 3) potential N-myristoylation site;

(ix) a Gly-Ser-Gln-Gln-Gly-Val (amino acid residues 579-584 of SEQ ID NO: 3) potential N-myristoylation site; or

(x) a Cys-Phe-Ile-Ser (amino acid residues 554-557 of SEQ ID NO: 3) potential prenylation site, wherein the stringent conditions are 0.015 M sodium chloride/0.0015 M sodium citrate/0.1% sodium dodecyl sulfate at 50°C.

--29. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Cys-Phe-Ile-Ser (amino acid residues 554-557 of SEQ ID NO: 3) potential prenylation site.

--30. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Thr-Leu-Arg-Asp (amino acid residues 179-182 of SEQ ID NO: 3) potential casein kinase II phosphorylation site.

--31. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Ser-Gly-Lys-Glu (amino acid residues 568-571 of SEQ ID NO: 3) potential casein kinase II phosphorylation site.

--32. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Thr-Leu-Arg (amino acid residues 179-181 of SEQ ID NO: 3) potential protein kinase C phosphorylation site.

--33. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Thr-Met-Arg (amino acid residues 562-564 of SEQ ID NO: 3) potential protein kinase C phosphorylation site.

--34. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Ser-Gly-Lys (amino acid residues 568-570 of SEQ ID NO: 3) potential protein kinase C phosphorylation site.

--35. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Ser-Gln-Lys (amino acid residues 586-588 of SEQ ID NO: 3) potential protein kinase C phosphorylation site.

--36. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Gly-Ile-Met-Val-Asn-Gly (amino acid residues 283-288 of SEQ ID NO: 3) potential N-myristoylation site.

--37. (NEW) The GBP-4 polypeptide of claim 28, wherein the GBP-4 polypeptide comprises a Gly-Ser-Gln-Gln-Gly-Val (amino acid residues 579-584 of SEQ ID NO: 3) potential N-myristoylation site.